

New York State Department of Transportation

Yellow Flag NB2358W005

By: Alex Abreu

Flag Date: April 24, 2023

Superseding Information:

No Flags Superseded

Structure Information

BIN: 1065318

Feature Carried: 278I278IX2M23027

Feature Crossed: 6TH AVENUE

Orientation: 8 - NORTHWEST

Region: 11 - NEW YORK CITY

County: KINGS

Political Unit: City of NEW YORK

Approximate Year Built: 1962

Posted Load Matches Inventory : Yes

Bridge Load Posting (Tons) : Not Posted for Load

Primary Owner: New York State Department of Transportation

Primary Maintenance Responsibility: 12 - State - Subcontracted to another Party

Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp

Number of Spans: 322

Verbal Notification Information

Person Notified: Heinz Joachim, P.E.

Date: April 24, 2023 3:00:00 PM

Of: NYSDOT Region 11

Signature Information

Signature: Alex Abreu, P.E. 099761-1

Date: May 08, 2023

Reviewed By: Robert Kemp

Date: May 09, 2023

Attachments: 7

Flagged Elements

Parent Element	Element	Total Quantity	Unit
Span Number : 24			
	107 - Steel Open Girder/Beam	903	ft

Flagged Condition Description

This Yellow Flag No. NB2358W005 is NEW.

Location: Span 24, Girder G15 at Pier 23 above the right lane of 65th Street EB roadway between 4th and 5th Avenues.

Description:

The end of Girder G15 on Span 24 Side of Pier 23 exhibits a 3/4" long diagonal crack in the girder web stemming from the bottom cope of the girder (Photos #6 and #7).

In addition, the girder web in front of the connection to the pier exhibits section loss along the connection angle of 1/8"-3/16" deep (23% avg.) for the full height of the web in the left face and 3/16" deep section loss (27%) for the full height of the web in the right face, resulting in overall section loss in the web at the connection to the pier of approximately 50%. (Photos #4 and #5).

Furthermore, in the lower web above the bottom flange in front of the pier, the girder web exhibits section loss 1/8"-3/16" deep (averaging 23%) for 24"L x up to 16"H at the left face, followed by 1/8" deep section loss (18%) for 18"L x 4"H. The right face of the girder in the lower web above the bottom flange also exhibits 1/8"-3/16" deep section loss (averaging 23%) for 42"L x 6"H. Within the section loss area in the lower web there are two corrosion holes for 4"W x 2"H each with 1/4" deep section loss surrounding the holes at each face of the girder. The total overall section loss along the lower web of the girder above the bottom flange is approximately 46%. (refer to Yellow Flag Condition sketch #2 for more details).

This is a newly flagged condition.

Notes:

1. Adjacent Girder G14 exhibits 1/8"-3/16" deep section loss in the lower web above the bottom flange for 54"L x 2"-12"H at the left face and 36"L x 1"-4"H at the right face with four corrosion holes within the section loss area for two 1/4" diameter and two 1/2" x 1/8". The overall section loss along the lower web of the girder is approximately 46%. The left face of the girder exhibits 3/16"-1/4" deep section loss in the web height along the connection angle for 8"H x 4"W in the upper web and 12"H x 4"W in the lower web resulting in approximately 33% section loss. The bottom flange exhibits edge section loss for 30% at the left side and 50% at the right side for 36"L.
2. Adjacent Girder G16 exhibits 1/8" deep section loss for the full height of the web along the connection angles for 2" wide at each face resulting in overall section loss of approximately 37%. The lower web above the bottom flange exhibits up to 3/16" deep section loss for 36"L x 3"H at the left face and 12"L x 3"H at the right face resulting in overall section loss of approximately 55%.
3. A single lane closure in the right lane on EB roadway and 30ft bucket truck are required to access this location.
4. Dye Penetrant test was performed to establish the limits of the crack.
5. The previous 2022 SILO CS3 Mini Report documented the above girder location with the following defect: The left side of Girder G15 exhibits 2'-0"L x 1'-8"H area with 3/16"-1/4"D section loss at the lower web next to the connection angle. Within the same area, Girder G15 exhibits 2 corrosion holes, each 4"W x 2"H. Additionally, the web exhibits a 2"W x 9"H area with 1/8"D section loss next to the connection angle at the top and a 4"H x 1'-6"W area with 1/8"D section loss at the bottom of the web starting 2'-0" from the connection angle. The right side of Girder G15 exhibits a 6"H x 3'-6"L area with 3/16"-1/4"D section loss at the lower web next to the connection angle and a 2"W x full height area of 3/16"D section loss next to the connection angle.

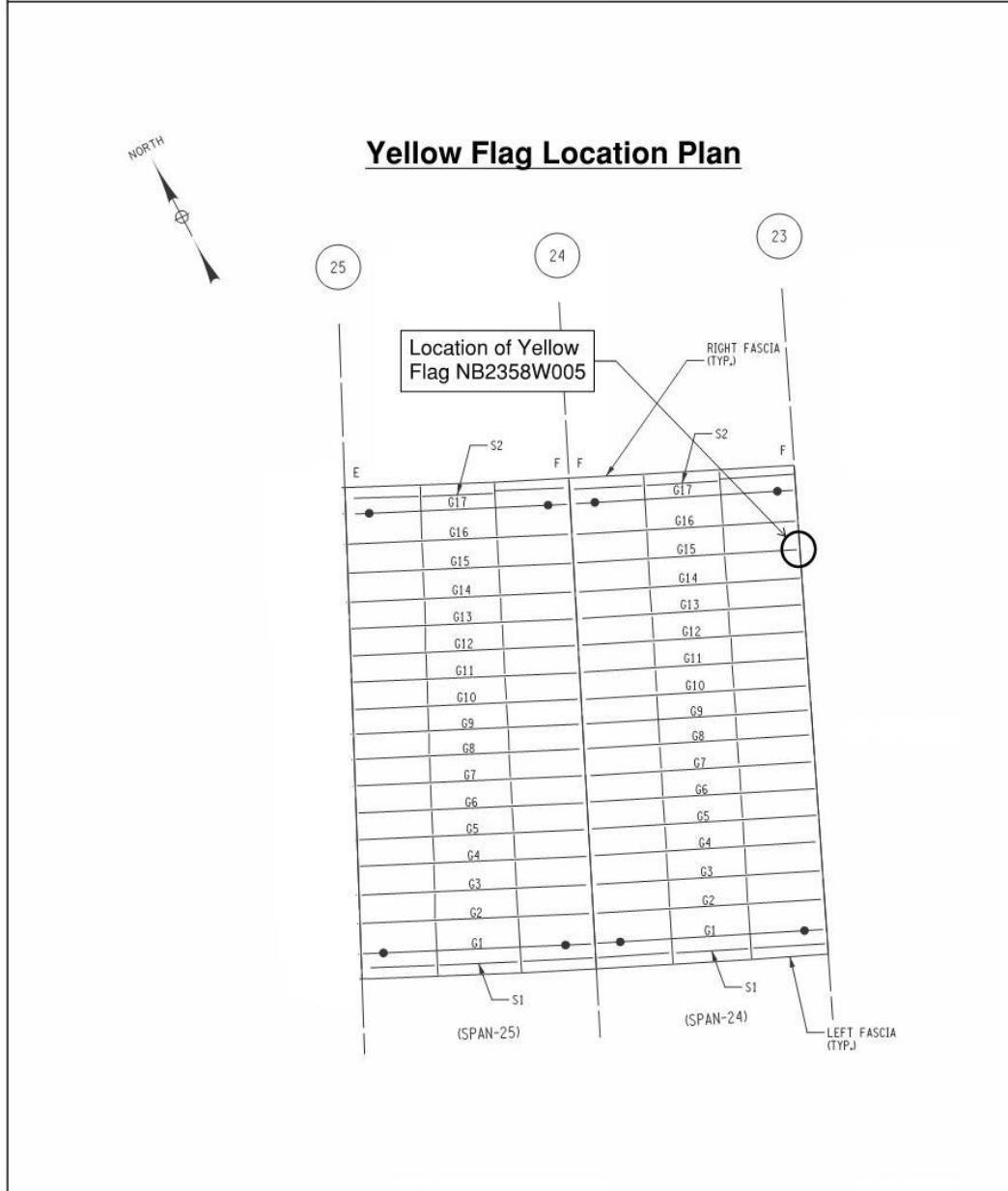
Flag PhotographsPhoto Number: **1**Photo Filename: **23_Flag Location Plan.jpg**Gowanus Expressway
2023 Biennial Inspection - Field SketchBIN: 1065318Team: AA/TSDate: 04/24/2023Span: 24Location: Girder G15 at Pier 23**wsp****Attachment Description: Flag Location Plan**

Photo Number: 2

Photo Filename: 23_Span 24_Girder G15_Connection Detail.jpg

Gowanus Expressway
2022 Biennial Inspection - Field Sketch

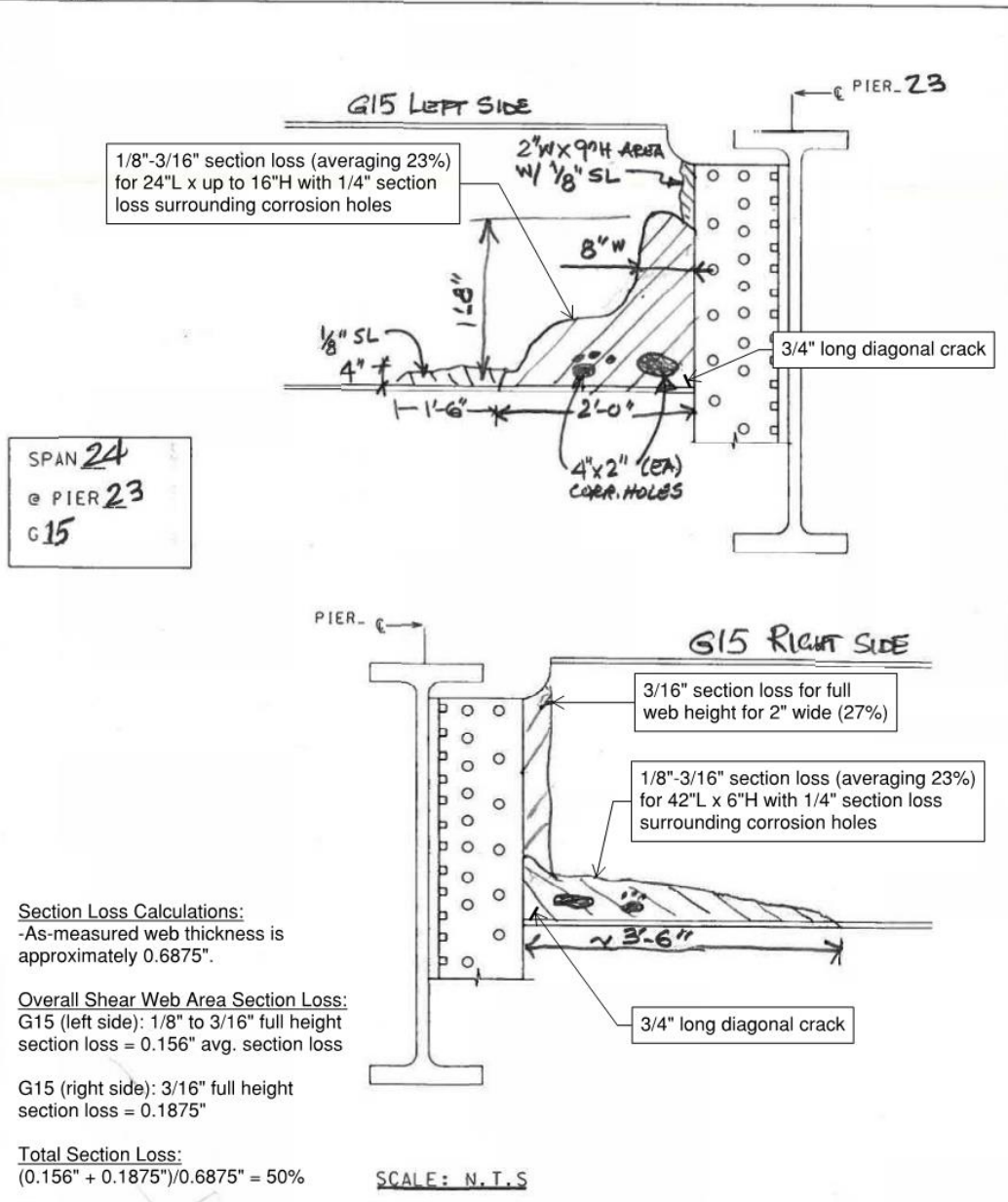
BIN: 1065318

Team: AA/TS

Date: 04/24/2023

Span: 24

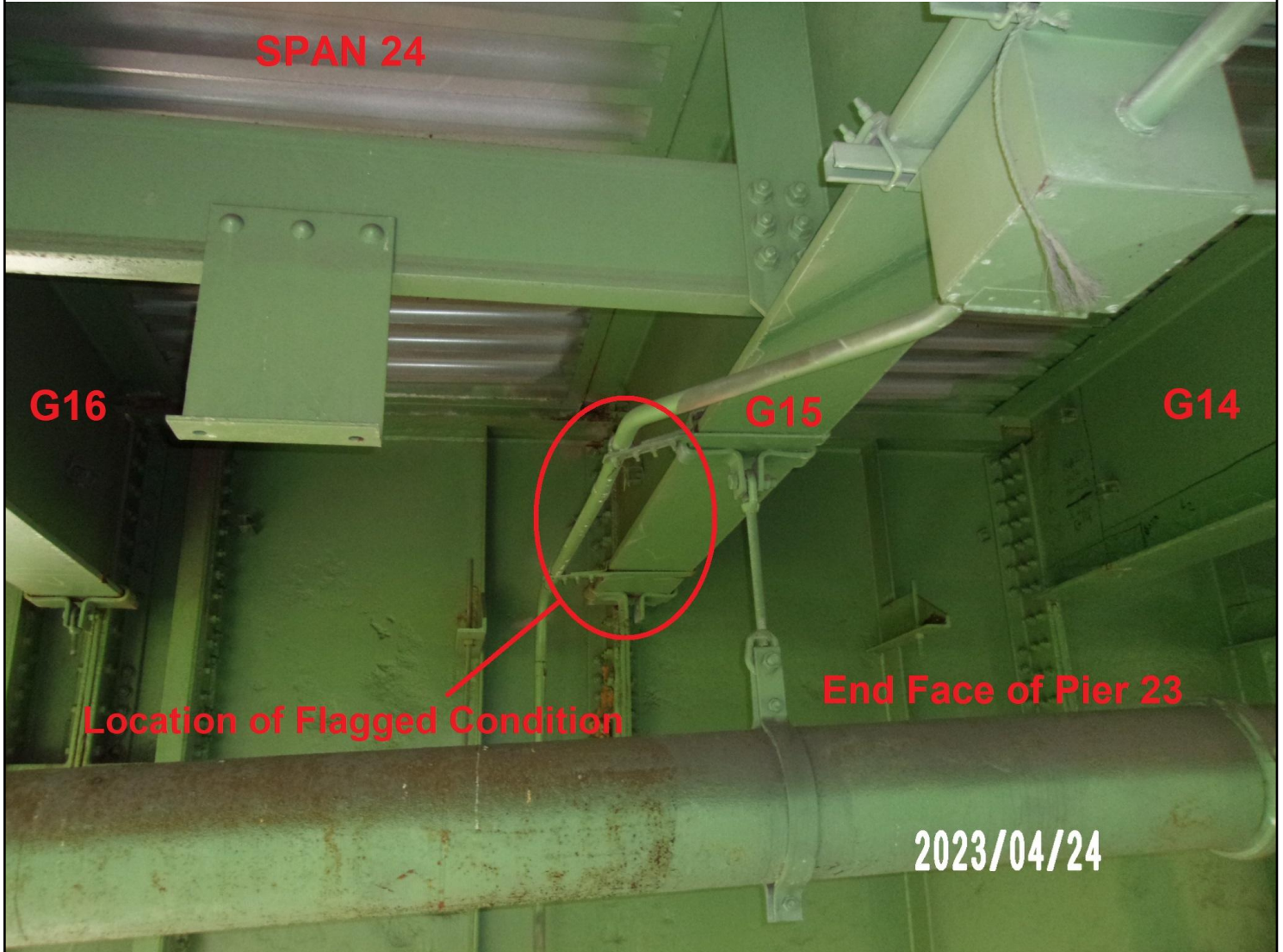
Location: Girder G15 at Pier 23



Attachment Description: Flag Condition Sketch

Photo Number: 3

Photo Filename: 23_113_6454.JPG



Attachment Description: General view of the flagged condition at Girder G15 in Span 24 at Pier 23. Looking Begin.

Photo Number: 4

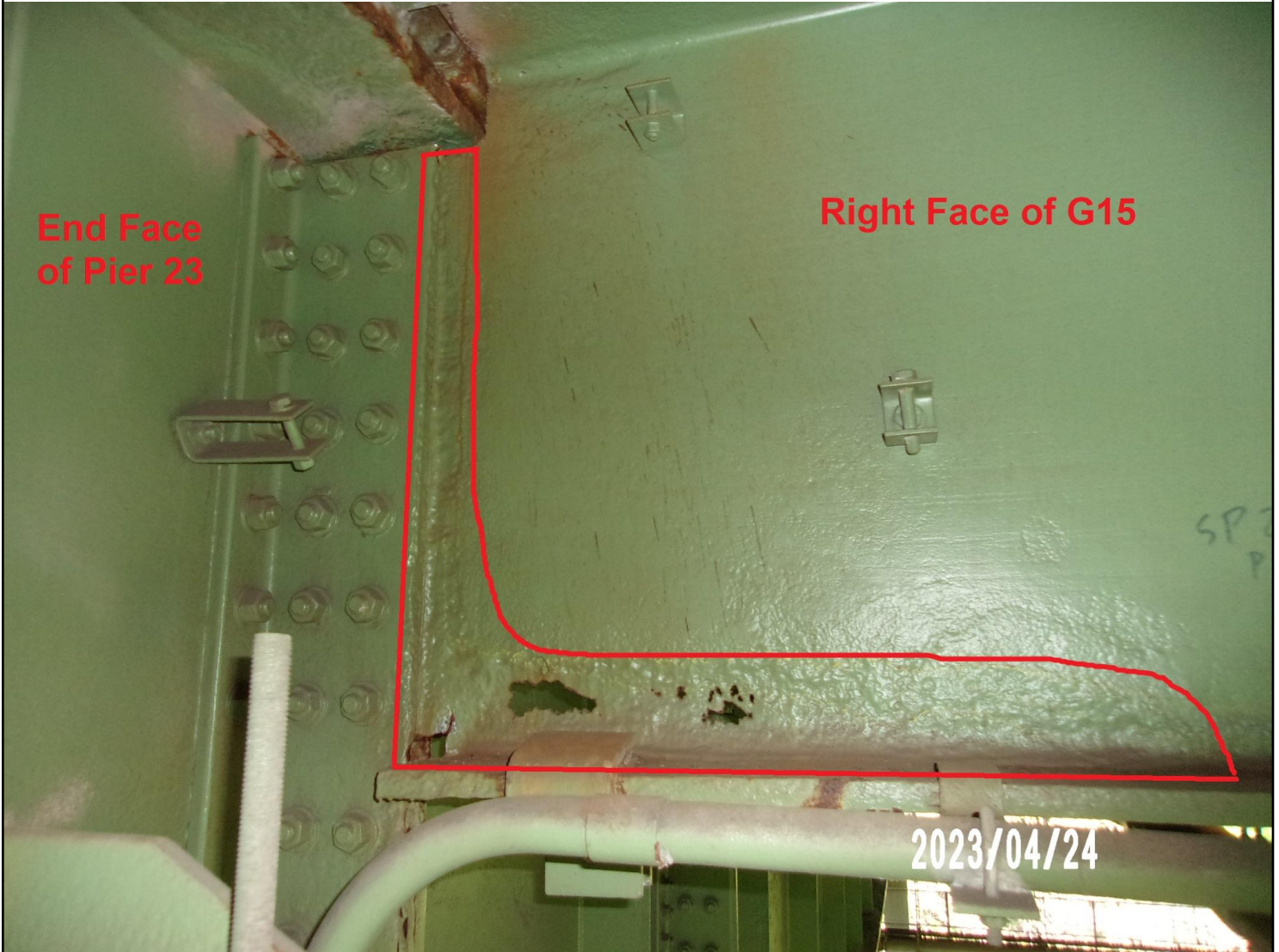
Photo Filename: 23_113_6446.JPG



Attachment Description: The left face of Girder G15 in Span 24 at Pier 23. The girder web exhibits full height web section loss averaging 50% and 46% in the lower web above the bottom flange, with two corrosion holes in the lower web with 1/4" deep section loss surrounding the holes. Looking Right.

Photo Number: 5

Photo Filename: 23_113_6450.JPG



Attachment Description: The right face of Girder G15 in Span 24 at Pier 23. The girder web exhibits full height web section loss averaging 50% and 46% in the lower web above the bottom flange, with two corrosion holes in the lower web with 1/4" deep section loss surrounding the holes. Looking Left.

Photo Number: 6

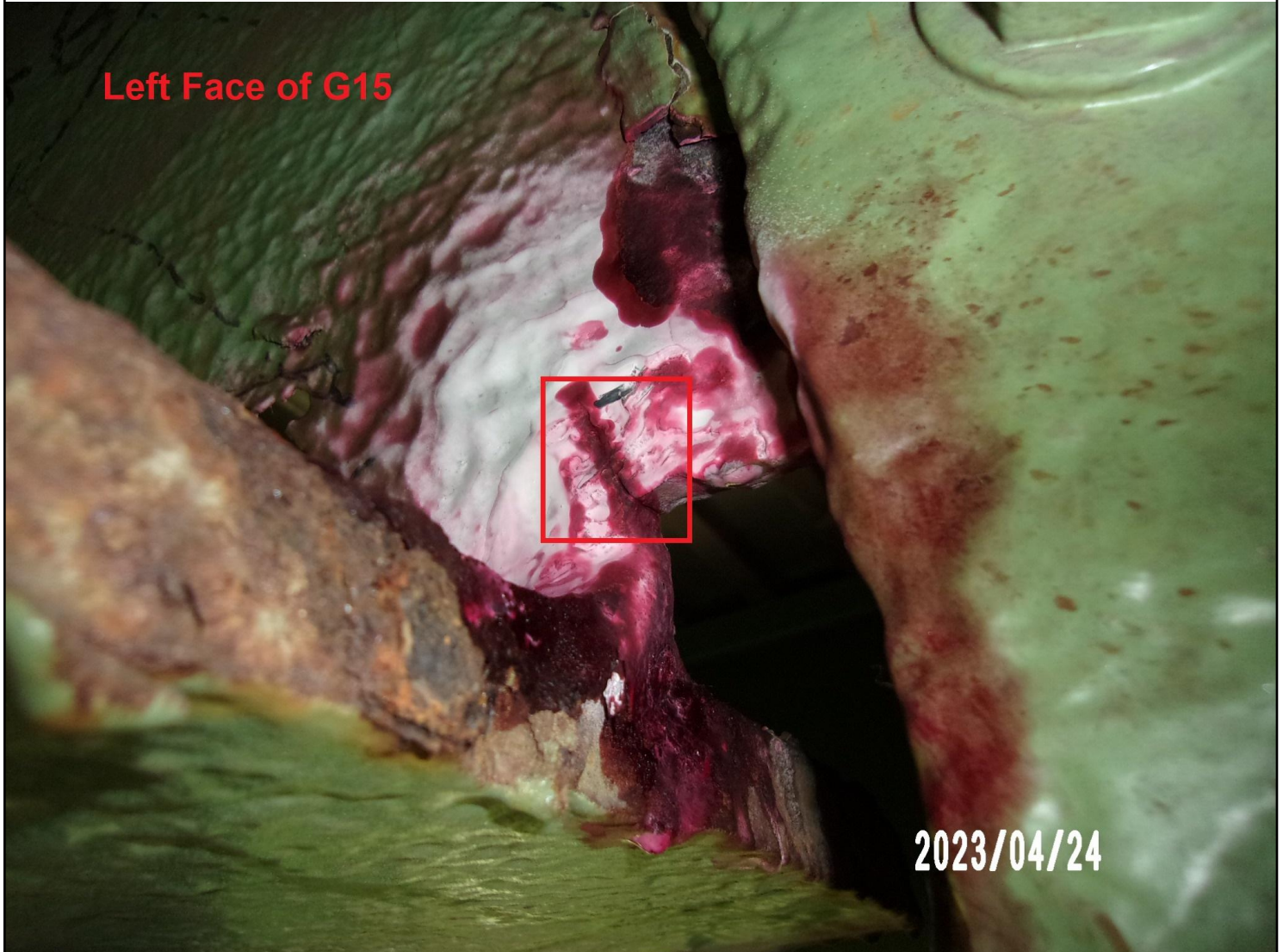
Photo Filename: 23_113_6456.JPG



Attachment Description: The left face of Girder G15 in Span 24 at Pier 23. The girder web exhibits 3/4" long diagonal crack stemming from the bottom cope. Looking Right.

Photo Number: 7

Photo Filename: 23_113_6458.JPG



Attachment Description: The left face of Girder G15 in Span 24 at Pier 23. Close up view of the 3/4" long diagonal crack in the girder web stemming from the bottom cope. Looking Right.